

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

- 1 1. (Currently Amended) A method of detecting a DNA in a crude milk
2 sample, said method comprising the steps of:
3 (a) contacting said crude milk sample with a metal ion chelator;
4 (b) contacting said crude milk sample with a detergent;
5 (c) contacting said crude milk sample with a fluorescent label; and
6 (d) after steps (a), ~~and~~ (b), and (c), detecting said DNA fluorescent label in
7 said crude milk sample thereby detecting the DNA in said crude milk sample.
- 1 2. (Original) The method of claim 1, wherein no protease is added to said
2 milk sample.
- 1 3. (Original) The method of claim 1, wherein said detecting said DNA is
2 quantitating said DNA, thereby determining the somatic cell count within the milk sample.
- 1 4. (Original) The method of claim 3, wherein said milk sample is a crude
2 bovine milk sample.
- 1 5. (Original) The method of claim 1, wherein said metal ion chelator is a
2 member selected from the group of EDTA, CyDTA, DHEG, DTPA-OH, DTPA, EDDA,
3 EDDP, EDDPO, EDTA-OH, EDTPO, EGTA, HBED, HDTA, HIDA, IDA, Methyl-EDTA,
4 NTA, NTP, NTPO, O-Bistren, and TTHA, o-phenanthroline, dipicolinic acid, and
5 deferoxamine.
- 1 6. (Original) The method of claim 1, wherein said metal ion chelator is
2 EDTA.
- 1 7. (Original) The method of claim 1, wherein said detergent is a non-ionic
2 detergent.

1 8. (Original) The method of claim 7, wherein said non-ionic detergent is a
2 member selected from the group of Octylglucoside, Digitonin, C12E8, Lubrol, Triton X-100,
3 Nonidet P-40, Tween-80, Tween-20, BRIG 35, Dodecyl maltopyranoside, Heptyl
4 thioglucopyranoside, Pluronic F-127, Genapol X-080, MEGA 10.

1 9. (Original) The method of claim 1, wherein said detergent is Tween-20.

1 10. (Cancelled)

1 11. (Original) The method of claim 1, wherein the pH of the milk sample
2 is between 8.0 and 11.0, inclusive.

1 12. (Currently Amended) An analytical composition comprising a crude
2 milk sample, a metal ion chelator, a fluorescent label, and a detergent, wherein said crude
3 milk sample comprises a nucleic acid.

1 13. (Cancelled).

1 14. (Original) The composition of claim 12, wherein said nucleic acid is a
2 DNA.

1 15. (Cancelled).

1 16. (Original) The composition of claim 12, wherein said composition
2 does not include a protease.

1 17. (Original) The composition of claim 12, wherein said metal ion
2 chelator is a member selected from the group of EDTA, CyDTA, DHEG, DTPA-OH, DTPA,
3 EDDA, EDDP, EDDPO, EDTA-OH, EDTPO, EGTA, HBED, HDTA, HIDA, IDA, Methyl-
4 EDTA, NTA, NTP, NTPO, O-Bistren, and TTHA, o-phenanthroline, dipicolinic acid, and
5 deferoxamine.

1 18. (Original) The composition of claim 12, wherein said metal ion
2 chelator is EDTA.

1 19. (Original) The composition of claim 12, wherein said detergent is a
2 non-ionic detergent.

1 20. (Original) The composition of claim 19, wherein said non-ionic
2 detergent is a member selected from the group of Octylglucoside, Digitonin, C12E8, Lubrol,
3 Triton X-100, Nonidet P-40, Tween-80, Tween-20, BRIG 35, Dodecyl maltopyranoside,
4 Heptyl thioglucopyranoside, Pluronic F-127, Genapol X-080, MEGA 10.

1 21. (Original) The composition of claim 12, wherein said detergent
2 Tween-20.

1 22. (Currently Amended) A kit for detecting a nucleic acid in a crude milk
2 sample comprising a metal ion chelator, a detergent, and a ~~detectable~~ fluorescent label ~~DNA~~
3 probe.

1 23. (Original) The kit of claim 22 further comprising a fluorescence
2 detection system.
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